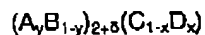


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This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended): A material that can be used for magnetic refrigeration, wherein the material substantially has the general formula



wherein

A is selected from Mn and Co;

B is selected from Fe and Cr;

C and D are different and are selected from P, As, B, Se, Ge, Si and Sb;

x is a number in the range of greater than 0 and less than 1;

~~x and y~~ each y is a number in the range 0-1; and

$\delta$  is a number from ( 0.1) – (+0.1).

2. (original): A material according to claim 1, wherein at least 90% of A is Mn; at least 90% of B is Fe; at least 90% of C is P; and at least 90% of D is As or Sb.

3. (original): A material according to claim 2, wherein the material has the general formula  $MnFe(P_{1-x}As_x)$ .

4. (original): A material according to claim 2, wherein the material has the general formula  $MnFe(P_{1-x}Sb_x)$ .

5. (original): A material according to claim 1, wherein x is a number in the range from 0.3 – 0.6.

6. (original): A material according to claim 1, wherein the material substantially has the general formula  $MnFeP_{0.45}As_{0.55}$ .

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7. (original): A material according to claim 1, wherein if D is As, As is partly replaced with Si and/or Ge.

8. (original): A material according to claim 7, wherein 1 – 40% of the As is replaced with Si and/or Ge.

9. (original): A method for the manufacture of the material according to claim 3, wherein powders of iron arsenide ( $\text{FeAs}_2$ ) or iron antimony ( $\text{FeSb}_2$ ); manganese phosphide ( $\text{Mn}_3\text{P}_2$ ); iron (Fe); and Manganese (Mn) are mixed in suitable quantities to produce a powder mixture that complies with the general formula  $\text{MnFe}(\text{P}_{1-x}\text{As}_x)$  or  $\text{MnFe}(\text{P}_{1-x}\text{Sb}_x)$  and the powder mixture is subsequently molten under an inert atmosphere and annealed.

10. (original): A method for the manufacture of the material according to claim 1, wherein the same comprises mixing powders of the compounds  $\text{Fe}_2\text{P}$ ,  $\text{MnAs}_2$ , Mn and P in suitable weight proportions, grinding the powders to produce a powder mixture complying with the general formula  $\text{MnFe}(\text{P}_{1-x}\text{D}_x)$ , melting the powder mixture in an inert atmosphere, and annealing the resulting alloy.

11. (original): A method according to claim 10, wherein the powder mixture is sintered at a temperature of approximately 1000°C and the resulting alloy is heated at a temperature of approximately 650°C.

12. (original): A method according to claim 10, wherein the sintering step takes at least approximately one hour and the annealing step takes at least approximately 24 hours.

13. (original): A method according to claim 10, wherein the starting materials are mixed in quantities so as to provide a composition having the formula  $\text{MnFeP}_{0.45}\text{As}_{0.55}$ .

14. (original): A method according to claim 10, wherein prior to melting the powder mixture is compressed to a pill.

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15. (original): A method according to claim 10, wherein the inert atmosphere is an argon atmosphere.

16. (original): A method according to claim 10, wherein the molten powder mixture is annealed at a temperature in the 750 - 950°C range.

17. (original): A method of using the material according to claim 1 comprising employing the material in magnetic refrigeration in the 250 - 320° K range.

18. (original): A material according to claim 2, wherein at least 95% of A is Mn.

19. (original): A material according to claim 2, wherein at least 95% of B is Fe.

20. (original): A material according to claim 2, wherein at 95% of C is P.

21. (original): A material according to claim 1, wherein at least 95% of D is As or Sb.

22. (original): A material according to claim 8, wherein 10 - 30% of the As is replaced with Si and/or Ge.

23. (original): A material according to claim 22, wherein 17 - 23% of the As is replaced with Si and/or Ge.

24. (original): A material according to claim 23, wherein approximately 20% of the As is replaced with Si and/or Ge.

25. (original): A method according to claim 10, wherein D comprises As and Si and/or Ge.

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26. (original): A method according to claim 13, wherein the starting materials are mixed in quantities so as to provide a composition having the formula  $\text{MnFeP}_{0.45}\text{As}_{9.45}(\text{Si/Ge})_{0.10}$ .